



TU ELECTRIC

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Ref. # 10CFR50.55(e)

September 11, 1992

Mr. J. Cahill, Jr.
General President

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
EDG LUBE OIL PRESSURE REGULATING VALVES
SDAR CP-92-13 (FINAL REPORT)

Gentlemen:

On August 12, 1992, via facsimile, TU Electric notified the NRC of a reportable defect in the CPSES Unit 2 Train "A" diesel generator lube oil pressure regulating valves. However, further evaluation has determined that the deviation is not reportable pursuant to 10CFR50.55(e) or 10CFR21.

Attached is the written report which satisfies the reporting requirements of 10CFR50.55(e). The report has been formatted in a manner that corresponds to the specific information requested by subparts (i) through (viii) of paragraph 10CFR50.55(e)(8) of the regulation. This is exclusive of that portion of subpart (viii) regarding the advice that has been or will be given to other entities outside of TU Electric. Such advice would be dependent on the entities' specific use and operating/maintenance history of the subject components.

Sincerely,

William J. Cahill, Jr.
William J. Cahill, Jr.

By: *Roger D. Walker*
Roger D. Walker
Manager of Regulatory
Affairs for NEO

CEJ/grp
Attachment

c - Mr. J. L. Milhoan, Region IV
Resident Inspectors, CPSES (2)
Mr. B. E. Holian, NRR
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10CFR50.55(E) REPORTABLE DEFECT INVOLVING THE
DIESEL GENERATOR LUBE OIL PRESSURE REGULATING VALVES

(i) Information supplied by:

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(ii) The basic component is the CPSES Unit 2 Train "A" emergency diesel generator lube oil pressure regulating valves (EDG).

(iii) The EDG was supplied by Delaval Engine & Compressor Division for Cooper Energy Services.

(iv) Bore clearances in the lube oil pressure regulating valves were smaller than required, causing the valves to stick open. This could cause excessive bypass flow back to the EDG lube oil sump.

This issue was first identified during the 1985-86 time frame. Cooper Energy Services sent a Product Improvement Matrix to users describing a product change involving a new sleeve, an increase of housing-to-sleeve and sleeve-to-sleeve clearances, and a longer differential pressure spring. The Unit 2 valves were returned to the vendor for the modification and reinstalled when received back to CPSES.

When the Train "A" valves were disassembled in August 1992, it was noted that the machining portion of the modification described in the Matrix had not been performed.

During diesel testing, the auxiliary lube oil pump is started first to build up lube oil pressure before the engine rolls. As the engine begins to roll, the combined discharge pressure from both the auxiliary and shaft-driven lube oil pumps forces the regulating valves to open fully. As the oil pressure stabilizes, the auxiliary pump is secured. If the valves were to stick in the full-open position at this point, the header and turbocharger oil pressure would decrease to a point near the low lube oil pressure trip. This trip is designed to protect the diesel during testing only.

The auxiliary lube oil pump is not started during an emergency diesel start and the low lube oil pressure trip is deactivated to allow the diesel to remain in emergency.

operation with reduced lube oil flow. Operating experience with the valves in the full-open position shows that the oil pressure stabilizes near the low pressure trip setpoint and adequate lube oil has still been supplied to the engine.

Therefore, this deviation does not represent a defect which could create a substantial safety hazard and is not reportable pursuant to 10CFR50.55(e) or 10CFR21.

- (v) This deviation was identified on June 26, 1992.
- (vi) There are two diesel generators per Unit at CPSES.
- (vii) The pressure regulating valves have been removed, machined to the vendor's recommended clearances, reinstalled, and tested satisfactorily.
- (viii) This deviation is applicable to CPSES Unit 1. However, the lube oil pressure regulating valves for both Unit 1 diesel generators and the Unit 2 Train "B" diesel generator previously were modified by the vendor and have all operated without sticking since then. Therefore, no further action is required.